Digital Existence - the Modern Way to Be

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ABSTRACT

This is an interpretative viewpoint blending perspectives to form a composite view of digital existence. The paper uses philosophy, sociology and linguistics within an ethnographic framework of contrasting cultural and cultural artefact views. Digital being and the relationship between physical and virtual are discussed. Evidence suggests acceptance of the virtual world as a location of coexistence. How technology has merged with humans so that humans have become more than their organic selves is examined. In a virtual world, digital existence is achieved through Daseinian avatars and so the concept of self is explored. There then follows a broader discussion about the online world which leads into how these new technologies become accepted by individuals and society. The influence of mass media is considered in this context. This is followed by a short analysis of the vocabulary used to describe the online world. The paper ends with a call to rethink how to view and react to the online world. Existing positions are challenged as being inappropriate given the analysis undertaken.

Keywords: Avatar, Dasein, Internet metaphors, Digital beings, Virtual world, Technological lexicon

1. INTRODUCTION

The focus of this paper is post 1990 which was the year the first web browser was developed and used by Tim Berners Lee. It is probably this single event which heralded the creation and resulting exploitation of the virtual world, first by pioneers and then more recently by nearly everyone. It was instrumental in promoting human technology intimacy as discussed by Tomasi (2008). He suggests that technology is not competing with humans but is there to enhance organic and mental shortcomings. Hence an intimate relationship is established between human and technology. Taken one step further this relationship could evolve into an amalgam as depicted by cyborgs and ultimately androids. This science-fiction style scenario, which is based on *intimacy* (Tomasi, 2008), might become a reality in the future. However, today such intimacy already exists in the virtual world.

1.1 Approach

This paper is an interpretative viewpoint which discusses a snapshot of the online world. It does not claim to be comprehensive but rather offers pointers for new avenues of research, and encourages rethinking by policy makers and regulators. The approach has been to blend a number of strands to form a composite view of digital existence which in turn highlights aspects worthy of further investigation. Thus the paper draws upon philosophy, sociology and linguistics to tease out some of the key issues.

According to Hine (2000) there are two ethnographic perspectives of the virtual world. The *cultural view* is of a virtual place where people form and reform practices and meanings, whereas the *cultural artefact view* is of technological product which is developed, marketed and used by people. Both perspectives are relevant to this discussion and together they

support the idea of the existence of an online continuum which will be discussed in a later section.

The discussion commences by examining how technology has merged with humans and so in some sense humans have become more than their organic selves. In a virtual world, digital existence can be achieved through Daseinian avatars. The concept of self in this environment is explored. There then follows a broader consideration of the online world which in turn leads into a discussion as to how these new technologies become implicitly accepted by individuals and society. The influence of mass media is considered in this context. This is followed by a short analysis of the vocabulary used to describe the online world. The paper concludes with a call to rethink how we all should view and react to this online world.

2. THE VIRTUAL WORLD

The virtual world seems more than simply an application area. Hendler et al (2008) explain that it also acts as a social machine which enables different social processes to take place. In some sense we can exist in this virtual world as Lessig (1999 and 2006) already illustrated at a time the Internet was just at the beginning of its commercial development. Furthermore, in an early work, Panteli and Duncan (2004) describe the virtual world as a theatre where plays are enacted by actors who take on different roles and follow different scripts. Others direct or watch these plays. Together they define the nature of the virtual situation. ICT provides the tools, equipment, costumes and other facilities that enable plays to be performed. Panteli and Duncan use this concept to investigate the creation and operation of virtual teams but clearly it can be used for every activity in the virtual world. Previous work by Panteli and Dibben (2001) on virtual organisations implies that such organisations must be populated by virtual workers. It is interesting that Panteli and Dibben recognise that these virtual workers do other things than simply undertaking work tasks when they discuss the idea that virtual workers will exhibit not only work ethic characteristics but also playfulness characteristics. This is in line with Castells (1996), from a sociological point of view, or Sunstein (2002), from a political scientist's position, who explain that ICT changes human existence particularly regarding sociality and community. Such ideas establish a sense of people existing in a virtual space. In the intervening period this sense of virtual existence has been strengthened as technology and its application spread have both advanced. Thus digital existence is important since eventually many, if not all, of these services, products and interactions will only be available online, thus forcing us to live, work, learn and socialise in the virtual world. Technopedia (2016) defines a virtual world as an online community environment where individuals interact with each other using text-based, two-dimensional or three-dimensional graphical models called avatars. The virtual world is very similar to the physical world, with real-world rules and real-time actions and communications.

3. DIGITAL BEINGS

Balnaves and Luca (2005) suggest that operating in the virtual world occurs through a form of agency which simply acts as a mechanism by which information can be shared. Want (2008) discusses the mobile phone as an agent, arguing that it acts as a pervasive proxy mediating with services and other phones on behalf of the owner. Balnaves and Luca (2006) suggest that digital beings could therefore be at some point an electronic document, a

digital signal or a data structure. Agency is discussed by Lanfranco (1995) but the implied meaning is different. The digital being is recognised as residing in the virtual workplace operating as an effective participant in both local and global activities. This suggests that Lanfranco's focus is more on digital being rather than agent as described by Balnaves and Luca (2005 and 2008) and used by Want (2008).

The technological evolution leading to the creation of the virtual world has changed the way in which we should consider self. Self, as defined by Locke (1997 [1706]), is a conscious thinking thing regardless of substance. He postulates that self must be fixed in a body. However, in today's context it is reasonable to acknowledge that this body is likely to have both physical and virtual components. Indeed, De Vries (2006, 70) recognises this is Ihde's embodiment (I-technology)→world relationship where technology and humans coalesce. Brey (2000) explains that Ihde's view is based upon the special relationships between human beings and artefacts which enable them to interact with the environment because such relationships become part of our embodiment. Brey (2000) further suggests that Merleau-Ponty's theory of embodiment relations extends Ihde's theory by considering how relationships are constituted and by defining experience not only as the experience of the artefact but also the experience of the location of the artefact.

The concept of self has been discussed at length by Kant (1983 [1781/1787]) particularly in *Critique of Pure Reason*. This includes the thesis of consciousness of self as a single, common subject of experience (KdRV, A350 translated into English in Kant, 1997). The individual may have a variety of experiences but it is the combination of these viewed as a whole which defines self. So, for example, an individual may have experiences both in the physical world and virtual world but the individual self is the totality of these experiences. This holistic view of self fits with Heidegger's (1979) concept of Dasein in "Being and Time" where the human being is a whole rather than a compound of mind and body (Crowell, 2001). However Spencer-Scarr (2015) explains that Heidegger viewed time as being linear which is inappropriate in the virtual world. This is because humans as Daseins, "have the ability to be 'present', albeit virtually, in a geographically boundless landscape in 'near instant' time for eternity within fluid space" (ibid, p6).

It is the Dasein which Kim (2001) uses to explore the phenomenology of digital beings. Just as in the physical world where humans have physical trappings such as paintings, keys and jewellery, in the virtual world, digital beings have digital trappings such as digital photographs, electronic papers and passwords. Kim (2001, 107) argues that as Daseins we can encounter others in the virtual world and that it "… will fundamentally change the ways in which human beings interact with one another and open up new horizons …". It is this which Piliang (2015) refers to as an *imagined community* where space, location and body do not have a physical existence and so have to be imagined. Interaction is dominated by the digital screen which becomes of Dasein.

In this way human beings are extended as they are both physical and digital which can raise new issues. For example, a teenager might be socialising happily in the school yard whilst at the same time being subjected to a vicious cyberbullying attack. What happens to the virtual element of self can have a catastrophic effect on the emotional and physical elements of self. A second example of cybermourning is discussed by Campbell and Smith (2015). They

conclude that open internet forums which enable the public expression of grief establish an ongoing relationship which in effect amounted to keeping the physically deceased person virtually alive.

It is time to recognise that in some sense we now live in two worlds, one physical and one virtual. If this is true then we need to reconsider how the virtual world should be perceived, used and regulated. Two elements, avatars and personal data, provide some ideas of what must be considered.

3.1 Avatars

An avatar is a graphical representation of an individual. It can be a three dimensional body in virtual worlds and two dimensional icon in online communities. It appears from Kim's argument that avatars are Daseins in the virtual world. Jones (2010) suggests that a Dasein as an avatar is a digital-being-in-the-world-wide-web made up of binary digits there to be conveyed and processed through single electronic channels. This being of self-expression is formed by a combination of textual communication and graphical imagery which enables it to mimic physical world actions (Wolfendale, 2007). Avatars exhibit attributes and emotions which reflect both the physical and virtual existence with such attributes often being gender specific (Nagy & Koles, 2014). Furthermore an avatar has presence in a shared environment where other avatars exist (Wolfendale, 2007). Together avatars collaborate in the pursuit of a civil society (Adrian, 2009). As such there is an opportunity to break down social silos. However, as Tett (2015) points out, this will only happen if digital beings view this virtual civic society as a malleable, multidimensional community.

3.2 Personal Data

It follows that, in this virtual world we exist as Daseins through a myriad of personal data and electronic interaction. We are digital beings who live out our digital existence in data repositories and travel along the conduits of data communication, taking with us our digital trappings wherever we roam. These comprise identification, possessions, content, preferences and records (Follett, 2007). As we roam we leave behind us permanent data shadows. In order to live and prosper in the virtual world an individual must be visible, credible and creditable. As digital beings, we each develop electronic persona across a range of digital media and through digital icons such as digital signatures, #tags, electronic profiles, electronic patient records and electronic purses. This data is our virtual anatomy. We come to exist electronically and our needs are addressed through having these digital icons. Without them we cannot function and we become invisible. How these digital icons are addressed in national and international legislation and regulation will impact on the rights and constraints of citizens in the virtual world. However, our digital persona is not simply characterised by our digital icons. The sense of self is completed through the relationships with others (Prosser and Ward, 2001).

Data communication conduits and data repositories are owned by others but the claim that our personal data and associated electronic interactions are owned by others is tantamount to accepting that we, as digital beings, can be owned by others, albeit in some form of distributed cooperative. With ownership comes the right to use, trade and dispose. Existing legislation such as data protection is concerned with the legitimate use of data items. It does not consider data items to be the organs of a digital being within the virtual anatomy and so

is not concerned with the wellbeing of digital beings protecting them against colonialism, servitude and slavery.

According to Osterhammel (1997) colonialism involves the domination of one set of people on an indigenous population. New groups of people arrive and inhabit new territory as permanent settlers while maintaining allegiance with the territory of origin. The virtual world is experiencing colonialism. New settlers such as electronic traders and service providers are establishing permanent presences. Their actions, demands and policies remain aligned to the physical organisations from which they came. The existing indigenous virtual population is being pressurised into conforming to the norms of the new settlers. Thus indigenous Daseins are at risk of being subjected to servitude and slavery.

Two recent examples, which have gained much media attention, illustrate how these concepts are being recognised by society at large.

The first is a marketing campaign which commenced in March 2018 by Experian, a consumer credit reporting agency. In the campaign people are portrayed as composite beings. One of the campaign messages states, “You may not know it yet but out there in the world exists a version of you that you may never meet. Your Data Self. … made up entirely of your financial data”. In the online and televised advertisements two images appear of the same person albeit looking slightly different to differentiate between Physical Self and Data Self. The emphasis is on the person being financial data which is of great commercial importance to Experian.

The second example is the Facebook – Cambridge Analytica scandal when 87 million data profiles were shared. Melrose (2018) explains that Data Selves were harvested by Cambridge Analytica using a digital personality quiz together with collecting personal data within their Facebook profiles and information about their friends on Facebook. It was people as data who were the priceless commodities there to be data mined and subsequently used for a disingenuous purpose.

4. THE ONLINE WORLD CONTINUUM

The online world is more than the virtual world as defined by Technopedia. One way to consider the online world is as a continuum. At one end it is a toolset comprising search engines, information sources, communication conduits and so on. At the other end it is a location within which one can “exist” as a Dasein thereby socialising and undertaking activities. Along the continuum lie agents which act as a go between for individuals to access online products and services. Such agents operate in the individual's workstation and/or elsewhere in the online world (Balnaves & Luca, 2006). Thus human technology intimacy manifests itself in many different forms along this continuum.

This online world has become pervasive across the whole of society as illustrated by the ongoing technological take up. According to www.internetsociety.org in September 2014 there were more smartphones than non-smartphones sold in the developing world; in May 2015 there were 3 billion internet users and 4.2 billion by December 2017; and in October 2015 more tablets were sold than PCs. Over 45% of the world’s population used the internet which had risen to 54% by 31 December 2017. According to www.statista.com in November

2015 there with over 1.5 billion Facebook users rising to 2.19 billion in December 2017 (this dipped in 2018 because of the Cambridge Analytica scandal), 900 million WhatsApp users, 316 million (November 2015) and 336 million (January 2018) Twitter users, and 300 million Skype users. Statista forecast mobile phone users in the world will exceed five billion by 2019.

Technology of the online world is continually evolving across this continuum providing new tools and experiences. Currently, individuals can choose how much or how little of the online world they wish to engage with. However, such things as peer group pressure, social norms, mass media, government policy and commercial marketing all influence what is available and which choice is made. It is likely that as technology evolves eventually online engagement will be mandatory for all. This absorption of the online into everyday lives continues to be worthy of investigation. An essential part of studying any online phenomena is through the available internet-based information (Oates, 2005). For this paper, it has been addressed through access to an online newspaper archive and a leading search engine to ascertain the level of everyday absorption. The outcomes are discussed in the following sections.

4.1 The role of mass media

In general, mass media influences social norms and people's attitudes and behaviours (for example see Hilt and Lipschultz (2016)). A sample newspaper was chosen to consider coverage of the online world. The Daily Mail was chosen as it is a middle-market tabloid newspaper that has the second highest circulation in the UK. Additionally its website has more than 100 million unique monthly visitors and as such it claims to be the most visited newspaper website in the world. The website contains a comprehensive archive dating back to April 1996 (see http://www.dailymail.co.uk/home/sitemaparchive/index.html). This archive was used to search for stories about the online world as well as occurrences of some key words.

The sample of stories selected (see Table 1) illustrates how the popular press depicts the online world. The first story, *Happily caught in a wonderful web*, opens with, "The Internet revolution is rolling. It is losing its nerdy image and becoming accessible and affordable to anyone with a personal computer." It is typical of stories which herald the beginning of accessible technology which will change society. By 2001 the two sample stories are reporting the Internet as a tool of leisure but also reporting the need to maintain social order. The three chosen stories of 2007 illustrate the evolution of the online to include "existence" as mentioned previously. Political campaigning, bullying and lifestyle are everyday aspects of the real world yet in these stories they have virtual counterparts. The story of 2008 illustrates the inclusivity of the online world discussing the increase of internet users in the older generations. Finally the story chosen in 2015, *Facebook in virtual reality move*, is a good example of how social networking is developing into a complete experience rather than one dominated by text.

Date	Headline
13 December 1998	Happily caught in a wonderful web
18 April 2001	Internet police force is launched
20 May 2001	Hit TV shows score in cyberspace
13 March 2007	Hillary's virtual campaign
31 May 2007	Warning over cyber-bullying in Second Life
26 June 2007	Virtual utopia where you only live twice
24 March 2008	Silver surfers' spending two hours a day on the internet
25 March 2015	Facebook in virtual reality move

Table 1. Typical newspaper stories about the online world.
(source: www.dailymail.co.uk/home/sitemaparchive/index.html)

Such stories influence people's perception of technology, how it is embedded into our lives and what is considered as societal norms. This mass media influence is further enhanced through the adoption of vocabulary by reporters. A search for chronological occurrences of some key words was undertaken on 13 January 2016. Only material written by Daily Mail journalists was searched. There were 560 items which included words beginning with "cyber". Such words include: cyberart, cybercafé, cybercitizen, cybercrime, cybersecurity, cybersex, cyberspace, cybersquatting, cyberstalking, cybersurfer, and cyberterrorist. It first occurred on 24 May 1999 in a story about internet booths and most recently on 28 December 2015 in a story about online shopping. There were 1,341 items which included "Google". It first occurred on 3 May 2004 in a story about the growth of Google and most recently on 13 January 2016 in a story about content censorship. There were 275 items which included "Skype". It first occurred on 3 October 2008 in a story about content censorship and most recently on 6 November 2015 in a story about group communication. There were 2,561 items which included "blog". It first occurred on 17 November 2005 in a story about content and most recently on 13 January 2016 in a story which quoted from a blog as a reliable source. The ongoing use of such vocabulary in the popular press promotes usage, leads to widespread adoption which in turn influences societal norms.

4.2 A new vocabulary

Technology has always spawned new vocabulary. Some of this vocabulary is transient reflecting technological trends whilst other parts are longer-lasting with some eventually entering the permanent vocabulary. This transition into permanency is an indicator of technology becoming part of the very fabric of society. A set of words and phrases, which described the online world, was chosen to search in Google. The set was subdivided into technology descriptions, people, locations, activities and problems. A set of everyday words was also used in order to place the occurrences of the technological words and phrases into the context of permanent vocabulary. Frequency of word occurrence is a legitimate method of analysing changes in vocabulary (see for example: Abele et al (2008); Chen and Ge (2007)). This form of analysis was used to produce the results shown in Tables 2 and 3.

Technology descriptions (in millions)	
computer	2,240
information society	5.39
digital era	0.760
internet	4,140
world wide web	37.2
www	25,270
email	7,280
internet of things	28.3
cyber	307
People (in millions)	
cybercitizen	0.022
digital being	0.112
digital persona	0.357
Locations (in millions)	
virtual reality	34.9
second life	18.1
augmented reality	14.5

Activities (in millions)	
skype	305
blog	4,590
podcast	242
wiki	1,060
social network	175
facebook	14,870
hashtag	262
Problems (in millions)	
cyber crime	5.1
data privacy	5.11
spamming	38.2
Everyday words (in millions)	
home	14,940
house	4,540
road	3,300
people	7,480
sport	3,190
books	2,890
love	4,180

Table 2. Occurrences of words and phrases using a Google search on 14/01/2016.

On this basis it appears that words and phrases relating to technology descriptions are within the permanent vocabulary and only lag a little way behind everyday words. Those relating to activities are also well established in the permanent vocabulary. Those relating to location and problems appear to be in a transitional state whilst those relating to people exhibit little permanency. This aligns with the idea that vocabulary remains only if it is useful and represents something that exists over the passage of time, thus filling a lexicon gap (Maxwell, 2009). The ranking of the chosen words and phrases is shown in Table 3. Unsurprisingly, all the everyday words rank highly. The highest ranking of all is “www” which is understandable as it fills a lexicon gap and is related to an ongoing technology which itself appears permanent. With around 25% of the world’s population using Facebook, its ranking is reasonable because so many people know what Facebook is. Activities which mimic established activities such as communicating, writing, searching all rank well. Technological concepts such as augmented reality and virtual reality rank less which suggests they are not so well understood by the wider population. Finally, those which relate to the extension of person (digital persona, digital being and cybercitizen) are ranked at the bottom. These represent a controversial complex concept which currently remains primarily with the realms of research.

Rank	Word or phrase	Occurrences (millions)
1	www	25,270
2	*home*	14,940
3	facebook	14,870
4	*people*	7,480
5	email	7,280
6	blog	4,590
7	*house*	4,540
8	*love*	4,180
9	internet	4,140
10	*road*	3,300
11	*sport*	3,190
12	*books*	2,890
13	computer	2,240
14	wiki	1,060
15	cyber	307
16	skype	305
17	hashtag	262
18	podcast	242
19	social network	175
20	spamming	38.2
21	world wide web	37.2
22	virtual reality	34.9
23	internet of things	28.3
24	second life	18.1
25	augmented reality	14.5
26	information society	5.39
27	data privacy	5.11
28	cyber crime	5.1
29	digital era	0.76
30	digital persona	0.357
31	digital being	0.112
32	cybercitizen	0.022

Table 3. Ranking of words and phrases.

The online world vocabulary is littered with both common and proper nouns which represent new products and services. Many of these have been transformed into verbs via antimeria which is the conversion of word use into a new use. This is not a new phenomenon. In the 1920s the Hoover brand name would eventually transform into the verb "to hoover" meaning to clean something with a vacuum cleaner. It is a verb which is still in common use. In a similar vein *to google* has now come to mean to search for information about someone or something on the internet using any search engine although www.oxforddictionaries.com still defines it as a search using Google. Table 4 contains this verb together with some other online world verbs. All these verbs fill a lexicon gap. Each is phonetic as well as being easy to say and spell. All are in common use and once again contribute to society's intimate engagement with this technology and further evidence that technology is part of the very fabric of life

Finally, it is important to mention the use of metaphors in the online world vocabulary. It is through metaphors that guidance is provided about the technological capabilities to individuals and society at large (Jamet, 2010). The internet superhighway is a phrase coined by Vice President Al Gore first in 1978. This metaphor suggests travel, the speedy transmission of large amounts of information and the ability to visit other places. Surprisingly, this metaphor is still in use. For example, Sabarra (2015) wrote about *Cyber Suitors: Shattered Illusions Along the Information Superhighway* in The Huffington Post, and Price and Norris (2014) wrote about *Connecting cars to the information superhighway* in The Telegraph. Jamet (2010) identifies an interesting dichotomy in such metaphors when he writes, "...if internet metaphors have largely been motivated by the perception of internet users, there is also a reciprocal influence because internet metaphors also structure our very perception of it, which is in keeping with the mutual relationship between language and thought." This dichotomy seems to pervade all aspects of the online world vocabulary.

Verb	Definition	First usage
google	To search for information about someone or something on the Internet using the search engine Google.	1990s
skype	To have a spoken conversation with someone over the Internet using the software application.	2000s
tweet	To make a posting on the social media website Twitter.	2000s
email	to send an electronic mail to someone.	1970s
spam	To send the same message indiscriminately to large numbers of Internet users.	1930s then 1970s
surf	To move from site to site on the Internet.	1990s
blog	To add new material to or regularly update a blog which is a regularly updated website or web page, typically one run by an individual or small group, that is written in an informal or conversational style.	1990s

Table 4. Verbs created from nouns through anthimeria.
(The definitions are from www.oxforddictionaries.com)

5. CONCLUSION

There appears to be a range of online world experiences which has been described as being on a continuum. The more sophisticated technology becomes the experience is extended and intimacy increases. These experiences change our perception of self, place, action and belonging. Acceptance of the technological evolution is affected by the mass media and the vocabulary that is used to describe both in the press and by society in general.

A carpenter will have a favourite hammer, a cook will have a favourite pan, a painter will have a favourite brush and a cleaner will have a favourite mop. It is natural that any artisan will have a special affection for a favourite tool. Similarly, we all have our favourite search engine and web browser tools. Such tool affection is at one end of the online world continuum. At the other end there is a much deeper intimacy in the virtual world where human and technology have integrated. Digital existence is played out through Daseins of which avatars are examples.

With this increase in the intimacy between humans and technology thinking and concepts need to be revisited. Acknowledging that humans are becoming composite beings leads to the needs to think of us not as data subjects but data selves. Data, the virtual anatomy should not be owned by third parties. The physical building of trust relies on visual cues not accessible online and so an alternative effective way needs to be found to establish online trust as current establishment attempts seem to be ineffective yet the use of texting and emoticons by ordinary people seems to have substance. Social scaffolding such as the Declaration of Human Rights needs to be reviewed and revised in the light of composite human beings. In the UK, there have been moves to establish a Digital Bill of Rights which aligns with this idea. The new data protection legislation across Europe has acknowledged that personal data is an important part of an individual and as such the individual must have much greater control over that data. There is an implied acceptance of Data Self in such legislation.

This paper raises issues which impact on universal access. How we view the virtual world impacts on the manner in which we design associated systems which in turn impacts on how

effective is access for all. Therefore, policy, regulation and social norms need to be revisited, modified and enhanced so that the whole continuum from tool through agent to being is accommodated. This is because quite simply

Digital being, the modern way to be,
I am the data and the data is me.

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